

ABSTRACT OF THE DISCLOSURE

Apparatus for the production of cellulose paper pulps from vegetative masses, comprising: a tower for sterilizing the mass to form a culture medium; a first screw for mixing the sterilized mass with an inoculum and handling the same in a sterile environment; a first conditioning and reaction chamber for mixing and handling the inoculated mass in a sterile environment and controlled atmosphere of CO<sub>2</sub> and O<sub>2</sub>, with controlled temperature and pH; a hydraulic pulper for the elementarization of the mass and its soaking up with suspensions of enzyme mixes; a hammer mill for the elementarization of vegetative material, to break up knots of stems and to pulverise leaves, detach bast from wood; a rotating tumbler having reels and counter reels for separating various fractions; a rotor compactor to reduce the volume of the vegetable mass and to remove air contained in the same; a second screw for mixing the compacted vegetetative mass with extracts containing enzymes and with water for handling in a sterile environment; a second conditioning and reaction chamber having means for mixing and handling of the vegetative mass mixed with the enzymes in a sterile environment and controlled temperature of CO<sub>2</sub> and O<sub>2</sub>, with controlled temperature and pH; and apparatuses for cooking and bleaching cellulose pulps, as well as for the disposal of refluents.